THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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EDITORIAL NOTES.

The Rabies Order recently issued by the Privy Council for the muzzling of dogs in the Metropolis is not to be a dead letter. The County Council declined to carry out the Order, and refrained from issuing any regulations. The Privy Council has now published another Order in Council by which Major Tennant, Chief Travelling Inspector of the Privy Council, is empowered to "execute and enforce the provisions of the Rabies Order or to procure the execution and enforcement thereof." Any expenses entailed will be charged to the London County Council. Considering how greatly Rabies has increased during the last few months it is essential that the muzzling regulations should be enforced, and we have no doubt Major Tennant will be successful in carrying out the Order. He has the willing assistance of the Metropolitan Police Authorities to effect the seizure of stray and unmuzzled dogs, and the Dogs' Home for their detention and destruction. Veterinary assistance too, in doubtful cases, he can easily obtain. All this the County Council could have obtained, and therefore their refusal to act cannot be based upon the assertion that they would have had to employ an army of men at an enormous expense to the rate-payers. That a Local Authority, whilst acknowledging the necessity of the Order for the protection of the health and lives of the rate-payers, should refuse to enforce it when they had within their reach every appliance is simply inexcusable. It is quite true they could not force the Police to act with them, but the Police Authorities were voluntarily prepared to do so, and the Council's refusal to act was merely a political move to accentuate their claim to be entrusted with the control of the police.

It is satisfactory to know that a way has been found to enforce measures against rabies in dogs, and its concomitant hydrophobia in man. But the order only applies to the Metropolis, and it is but too evident that the disease is increasing and spreading in other districts. Ireland has for months suffered worse than England; Lancashire is not free; and our report on another page shows that Yorkshire is infected—no less than six cases having occurred in the West Riding in one week. There is sufficient evidence for the application of the Order to the whole country, and no exceptions should be permitted. Those dogs which would be rendered useless for work with a muzzle on might be allowed to substitute a collar having attached to it a token supplied by the local authority.

Mr. Macgillivray sends us "a reply" to some of the remarks on his paper which appeared in our report of the discussion. We can assure him he is wrong if he thinks any of the speakers spoke disparagingly of his work. The tone of the discussion was always kindly and courteous, and we feel sure that when Mr. Macgillivray knows this he will not resent any expression of difference with his views.

We have always considered the profession much too thin-skinned; its members seem afraid to express opinions for fear they are contradicted, and to look upon free criticism as personal hostility. We shall remain a body of self-conscious mediocrities so long as such a feeling is allowed to exist. It is not modesty that suggests to a man to refrain from speaking or writing lest his sayings or his writings may be adversely criticised. It is quite a different feeling—it is vanity.

Mr. Banham has honored us with a little epistle complaining of our publication of the proceedings of the National Veterinary Association before the "Publication Committee" has seen them. We never claimed to have printed the "official report;" we said the report was obtained from the "official reporter," and we apologised for its being such a bad one. We asked the reporter for a transcript of his notes and we arranged to pay for it. We did not do this with the Hon. Gen. Sec's. permission, and if any apology is necessary we sincerely tender it with the assurance that no discourtesy was intended. We did obtain the assent to our action of the Local Secretary. There can be no doubt that an early publication of the Association's proceedings is good for the profession, and we believe that the members of the Association have no desire to withhold their papers and debates from those practitioners who are not also members. If we had employed a shorthand writer for our own report it would have cost ten guineas, and with every wish to be liberal to our subscribers, we confess that such an expense is more than we can afford. By obtaining a report from the official reporters we save considerable expense, but if the Association object to this proceeding we can promise them it shall not occur again—No account of the Meetings will then appear until everyone has forgotten what they were about, but we shall have acted in accordance with formal "order" and "official" propriety.

On September 1st—unless some fresh regulations are issued—importation of live-stock from Holland into our ports will be permitted. It will be remembered that a few months since foot-and-mouth

disease was brought here by German sheep, but the Privy Council immediately stopped the importation, and the disease did not spread from the port of landing. Holland is contiguous to Germany, and no definite boundary such as a river or mountain chain intervenes; it is therefore of importance to know what chance exists of foot-and-mouth disease spreading from Germany to Holland, and from there to this country when trade in live-stock re-commences. The Dutch have very strict laws against contagious diseases of animals, and they have carrried them out so effectually that their country has been free from disease for some years. It is well known that foot and mouth disease has existed in Germany for years past, but it has never infected Holland. During the last three months the Dutch have increased the stringency of their action on the German frontier, and have been perfectly successful in keeping out disease. During these months every inducement which may arise for smuggling German sheep over the frontier has been operative, but no case is known. Our stock-owners may rest quite contented that Dutch cattle will not introduce any disease, and consumers of milk and meat may welcome a fresh source of food supply.

We published in a recent number a report of a meeting of the Competitors at the "Royal Show Horse-shoeing Competition." The meeting was held in London, and Mr. William South, F.R.C.V.S. was requested to take the chair. Numerous objections to the awards were made, and some of the speakers referred to Sir Henry Simpson in terms which suggested that he had unfairly intruded on the scene of the competition. A memorial or protest embodying these matters was sent to the Royal Agricultural Society by a number of the competitors, who selected Mr. F. J. Lawrence as their representative. To this a reply from the Secretary has been received as under:—

ROYAL AGRICULTURAL SOCIETY OF ENGLAND,
12 HANOVER SQUARE, LONDON, W.
August 7th, 1889.

SIR,

I duly laid before the Council at their meeting on the 31st ultimo the protest signed by yourself and other competitors in the Horse-Shoeing Competition at the Windsor Show with reference to the awards of the prizes.

It is obviously impossible for the Council to overrule the awards of the Judges because certain unsuccessful competitors consider their workmanship superior to that of the prize-winners.

As to the second ground of objection, it is only necessary to say Sir Henry Simpson attended the competition because he had been appointed by the Society to arrange on their behalf for the supply of horses to be shod.

The Covering-letter to the protest signed by yourself alone does not in the opinion of the Council contain any points to which reply from them is called for, and the Council cannot undertake to engage in correspondence with those who impugn their good faith and that of the Judges whom they employ.

I am, Sir, your obedient Servant,
(Signed), ERNEST CLARKE, *Secretary*.

Mr. FRANCIS JOSEPH LAWRENCE,
6a North Bruton Mews, W.

CLINICAL NOTES.

CARDIAC DISEASE.

By J. L. PERRY (Messrs. Moir and Perry, M.R.C.V.S.) Cardiff.

On July 2nd of this year, we were called to attend a bay cart gelding (the property of Alfred Thomas, Esq., M.P.) a very fine, heavy animal standing nearly seventeen hands high, who up to that time had always been hearty and well.

The symptoms manifested through the disease, with but slight variations, were as follows:—general dulness in appearance, sluggish gait, appetite very irregular and capricious, slight cough, breathing accelerated a little; conjunctival and nasal membranes pale in colour, temperature 103·6, the buccal membrane exhibited red blebs resembling blisters in appearance, no effusion detectable in the bronchial tubes or lung tissue, pulse imperceptible at jaw and only discernible by auscultating the heart, where it was observed to be irregular. The fœces were irregular in quantity and quality, sometimes being mucus-coated, at other times diarrhœa being present.

The case was treated as one of acute indigestion, and saline medicines were administered, which had the effect of removing the blebs in the mouth, but no other beneficial effects resulted.

We assigned the cause of the illness to the fact that the horsekeeper, for some time previously, had been feeding the horse indiscriminately with artificial stimulants in the shape of patent prepared foods.

On July 7th the condition of the patient was altered very little; irregular appetite the cough and accelerated breathing still remained. Signs of wasting began to appear and we prescribed vegetable and mineral tonics.

July 10th we noticed a venous jugular pulse, and contemporaneously there appeared anasarca and dropsical swellings between the forelegs and along the abdomen.

Prof. Williams, who happened to be in the town at the time, had the opportunity of seeing the case and he coincided with us that the heart was seriously affected, apparently by valvular insufficiency of the right side. We informed the owner of the animal of our opinion and how the case would probably end, and he decided to turn the horse out to graze for a few hours every day. A few days after he adopted this course the horse was noticed to fall down and struggle violently, after a time recover, get up, walk a dozen yards or so, then stagger and fall over heavily on his side. The day after this he died very quickly whilst in one of these attacks.

We made a post-mortem examination and on opening the abdominal cavity we observed ecchymosed spots and purpuric markings on the peritoneum and intestines. The liver was very large and heavy (weighing as far we could judge three quarters of a hundredweight) and showed signs of fatty degeneration.

Attached to the spermatic cord at its superior part there was a tumour, soft and dark in colour almost like a blood clot, weighing about 3 lbs.

The lungs were pale, and crepitus was observable throughout.

The pericardial sac contained fluid and the membrane itself was thickened.

On seeing the heart we were very much struck with its enormous size—it weighed after being cleaned 17 lbs. 12 oz.: very fat and flabby: rounder than usual in shape: both ventricles and both auricles were extremely dilated and their walls very much thinned. All the valves were stretched, and appeared totally inadequate for the openings which they guarded; on their free margins there were excrescences or rather deposits of a warty nature, which when felt between the fingers had a gritty touch.

It is remarkable that the heart being in such a diseased state the animal did not show signs of ill-health before he did.

VETERINARY MEDICAL SOCIETIES.

ROYAL COUNTIES' VETERINARY MEDICAL ASSOCIATION.

A meeting of the above Association was held at the "Crown and Thistle Hotel," Abingdon, on Friday, 26th July last. G. A. Drewe, Esq., President of the Association, in the chair. There were also nineteen members and three visitors present. Messrs. A. L. Butters (Paddington); J. Sutcliffe Hurndall (Blackheath); G. Rees (Staines); and W. Western (Bracknell) were unanimously elected members of the Association.

A communication was read from Mr. Dudgeon, Hon. Sec., North of England V.M.A., calling attention to the fact that the meetings of that and Royal Counties' Association clashed, and stating that they would be willing to alter the date of their November meeting if Royal Counties' would alter the date of their February meeting. During the discussion of this subject, which was favourably received, it was stated that a number of Associations had no fixed dates for holding their meetings. Sir H. Simpson proposed that further consideration be posponed till next meeting, and that the Secretary be requested to communicate with the Secretaries of different Associations in order to arrange a Conference to determine whether it is not possible to have dates fixed by mutual consent for the meetings of the Associations. Mr. Barford seconded this motion, which was unanimously agreed to.

Mr. Simpson (Maidenhead) moved that in the event of a subscription being started for the purpose of placing a bronze bust of the late Professor Robertson in the Council Room of the Royal College of Veterinary Surgeons, a sum of not less than £5 (Five) be sent from the funds of this Association. This was unanimously agreed to.

Mr. H. J. Wilson (Newbury) submitted specimens of a diseased liver which weighed 9½ lbs. taken from a Jersey calf, nine weeks old. Also a diseased tongue taken from a yearling steer. Professor Williams said the liver was a very peculiar specimen, and one rarely met with. He believed the disease was caused in young animals by irritation set up by the remains of the umbilical cord. The tongue produced gave evidence of actinomycosis.

It was decided to hold the next meeting in London on the last Friday in November.

Inflammation as a Reparative Process.

Professor Williams gave an able address on this subject, which, he said, was a very important one to the profession. It was stated at the National Meeting that some men worked with their hands and eyes, and some with a "brass tube and a piece of glass," but although some had never possessed the tube and glass, or in other words, a microscope, that instrument was as essential to the veterinary profession as the practitioner who confined his attention to the sick box or phial." He (the speaker) had worked with the brass tube and piece of glass for the last thirty years, and he would endeavour to lay before them some of the results, the observations of himself and of many other workers, as to the changes which took place when an irritant was applied to a part. Broadly, they might define it the nutrition of the part which had been or was being acted upon by an irritant, and he might remind them that if the part were not to inflame when the irritant was applied it would be in a perverted or abnormal condition. The speaker then explained what reparative material was essential for the healing of a wound. As a result of the excitement and fever attending a wound, a large number of white corpuscles were produced by the lymphatic glands, and were formed in increased numbers when the body was under the action of an irritant. Hence this increased activity of the lymphatic system was looked upon as a curative one. Red corpuscles were produced from the white cells by ejection of so-called blood-plates. These blood-plates were colorless, and were about half the size of the red cells, being about one eight-thousand-six-hundredth part in a horse, and one six-thousand-four-hundredth part in a man. When escaped from the vessels they behaved like the white cells, forming lumps of coagula. The plates were very numerous in wasting diseases, as their development into red cells was arrested through want of strength in the patient. To return to white corpuscles, when an irritant was applied they acquired the power of migration. They wriggled through the wall of the vessel, and collected in great numbers at the seat of the irritation. They only acquired this power on being irritated, and the migration gave rise to new growths and the formation of pus. It was a well-known fact that when a part was irritated the ordinary microbes of the atmosphere commenced to play upon that part. The lower forms of life commenced to play upon any part of the body in which the vitality had been lowered. They were the enemies; the strife went on, and it

was a case of the survival of the fittest. Then the white corpuscles escaped through the walls of the vessels, and, as observed by one writer on the subject, a royal battle took place between the two. The white corpuscles were there as the army of defence. A mild irritant increased the power of the white cells to resist intrusion from without, and of destroying disease-germs. If, however, the irritant or the germ appeared in great strength the corpuscles died in defence and carried the irritant generally away, as in pus, abscesses, granulations, etc. Without irritation of some kind there could be no healing of wounds, or new tissue-growth. To the observant men it had been a matter of great wonder why certain diseases were so fatal. Take, for instance, inflammation of the bowels in a horse. The animal would die in a few hours. The pain did not do it, for other diseases were as painful. The reason was that in such cases the contents of the bowels were in a state of putrefaction, and the germs, gaining access to circulation, destroyed the vitality of the blood, and death resulted from blood-poisoning more than anything else. That coagulation was also necessary for the process of repair, and blood only coagulated after the irritation and injury of the white corpuscles. Syme, one of the greatest surgeons in Scotland, came to a very practical conclusion upon this point. Syme said that when a part was wounded there was a thin discharge from the wound at first, afterwards it became "glazed." That was simply coagulation, and Syme was of opinion—and he (the speaker) thought his conclusion perfectly correct—that the lips of a wound should not be brought together until this "glazing" had taken place. He would point out that greasy matter prevented this coagulation and process of repair. Coagulation was a proof that the blood was living and was not dead. It was concluded that coagulation resulted from metabolic change in the white cells after irritation; hence, some irritants, by inducing this change, might cause coagulation in the blood-vessels, as in pink-eye and pleuro-pneumonia. The speaker, after recommending soothing agents in acute cases, and irritants in indolent ulcers, went on to observe that the apparently destructive process on articular surfaces of joints was in reality a reparative one, as it removed the barriers to complete repair. Under the influence of slight irritation simple hyperplasia of cellular elements was observed, *i.e.*, old cells gave origin to new cells which preserved the character of their progenitors. If the irritation was more intense the old tissue was destroyed and transformed into embryonic tissue. There was then no longer hyperplasia but inflammatory heteroplasia—that was to say, the formation of a tissue which might be foreign to the part, viz., granulation tissue, which was always the same, whether it were skin, bone, synovial membrane, or other tissue from which it sprang. An inflammatory new formation was formed as follows:—Hypertrophy of the cell-nucleus, division of the nucleus, increase and then division of protoplasm, destruction of the fibres or the ground substance, formation of embryonic tissue, formation of new vessels, and cicatrisation. He pointed out that degeneration might occur when the embryonic tissue prolificates with great activity, and cells multiplied and accumulated without simultaneous formation of new blood-vessels. If the formation of the cells was rapid many of them would never be fully developed, That which was done in a hurry was never done well.

The process of granulation was next described by the speaker. In about forty-eight hours after the infliction of an injury, such as a wound, lacerated or divided tissues would be seen in a state of disintegration, and shortly afterwards they began to separate from those which were still living. The most superficial (or in the case of a deeply-seated inflammation, the nearest) capillaries at the same time underwent a remarkable alteration. They were converted into huge sac-like cavities filled to distension with blood. Every small capillary became a prominent object from the excess of blood which it contained, and in a short time became tortuous, and had a tendency to bulge upwards, or rather outwards, on a free surface. In a few days afterwsrds it would be seen that these same vessels had projected still further outwards, and were recognised as granulation loops. Round about them was a dense layer of white corpuscles, and the whole process seemed to be one of distension and displacement of the capillary vessels in the part. As the vessels were thrown upwards they carried with them a little areolar tissue which became œdematous and constituted the stroma of the granulations. The process by which this growth of new vessels was carried on was as follows:—The capillaries were formed of nucleated and endothelial cells cemented together at their edges. When irritated, these cells swell and soften, and if the inflammation continued their nuclei multiplied and the vessels of the inflamed tissue returned to the embryonic condition, *i.e.*, they were formed of embryonic cells arranged in rows and having in their centre a canal through which the blood circulated; and these modified capillaries and small blood-vessels became the point of departure for new vessels in various ways. Sometimes the cells themselves had anastomosing canalicular processes which put them in relation to the old vessels, after which they enlarged so as to receive the blood-corpuscles. In cases—a wounded foot for example—where there was exuberant granulation, torture was sometimes caused by the application of caustic. That was a mistake; the real remedy was in a soothing application. An exposed wound would heal without granulation, provided the superficial vessels were kept in their places by accurately applied pressure, and excessive congestion prevented by the wound being kept from putrefaction. In this case the wound became covered with a pellicle of new tissue elements, and the epithelium spread over the surface without there being any more vascularity than was necessary for organisation. Granulations, perhaps at first exuberant, always contracted, and this was not merely a process of drying, but an atrophy brought about by a layer of cicatrix-like elements, mostly spindle-shaped cells. As the stems of the granulations projected towards the surface they had to

pierce this layer, which during the process of repair began to contract, and in so-doing, constricted the capillary stems of the granulations, thus bringing about a natural atrophy. The further development of reparative material was well illustrated by the experimental organization of porous dead materials, such as a piece of sponge, silk ligatures, dead pieces of tissue (as lung, liver, cornea), balls of worsted, etc. If they took a small piece of sponge, and placed it, with antisepiic precautions, in the peritoneal cavity of an animal, it need not excite general peritonitis. It usually became attached to a coil of intestine within a few days, and in ten days would be found to have become firmly attached to the peritoneal coat of the bowel. If cut into, a layer of organising tissue, from one-eighth to one-tenth of an inch deep, would be seen by this time to have penetrated its substance. The manner in which organisation was accomplished was as follows:—The first thing noticed was that the interstices of the sponge became infiltrated with blood-stained fibrinous lymph. The sponge-canals did not usually become obstructed by it, but a fibrinous network was found adhering to their walls with many white blood-cells entangled in it. In course of time, however, this fibrinous gives way to the invasion of cells, both spindle-shaped and round, called by some writers true fibro-blasts. These gradually and progressively pushed their way inwards into the sponge, destroying or supplanting the fibrinous lymph. At the point where the two met the fibrine could be seen falling to pieces, becoming absorbed, and in all probability the new cells lived upon it—in fact, ate it up. According to one view, the leucocytes were consumed along with the fibrine and took no part in the organisation, being succeeded by larger cells, originating in the pre-existing tissue, large and round whilst young, but rapidly tending to become converted into spindles. Other observers and writers, however, thought that the white cells—leucocytes still played an important part, and that in reality they formed the whole of the reparative process, eating up the *debris* of the exudation, swelling into large cells, becoming spindle-shaped, and finally formed into tissue. This was not his own opinion. Then came the more practical observation—how were they to guide this process? Were they to encourage it? They would take a case of inflammation of the lungs. There the reparative process of itself, if excessive, might become fatal to life by destroying the vitality of such an organ as the lung. Hence this irritation, if extreme, proved destruetive. In that case they might diminish the irritation, and that was the great object in the treatment of inflammation—to recognize the due amount of the irritation of the body generally, and endeavour to maintain the body in that peculiar condition. If it was extreme, the function and vitality of the part were destroyed. They could therefore diminish that risk by reducing the irritation of the part and confining the reparative process within reasonable limits. Hence their great object should be to recognise the normal state of the body, moderate any undue irritation, and allow the process of repair to go on mildly and naturally. (Applause.)

On the motion of Sir Henry Simpson, a hearty vote of thanks was given to Professor Williams for his excellent address.

A cordial vote of thanks was also given to the President.

The members and visitors then adjourned for refreshments, and the interesting gathering shortly afterwards terminated. H. KIDD, *Hon. Sec.*

NATIONAL VETERINARY ASSOCIATION.

At a meeting of the National Veterinary Association held in the Society of Arts' Room, John Street, Adelphi, on Thursday, the 25th ult., an address was given by Professor E. Crookshank, M.B., upon the subject of Cow-pox. Professor Pritchard, President, occupied the chair. There was a good attendance of members.

Professor CROOKSHANK, who was well received, first apologized for not having had time to put a paper in the hands of the members. In the course of his remarks, he said it was hardly necessary to remind them that Jenner was the to publish an account of Cow-pox and that his description was too often taken for granted. As a matter of fact it was not studied. Few of them had time to go to the London libraries to hunt up old works on the subject. The speaker having given Jenner's description of the disease, said, that a few months later a more interesting and complete description was given by Clayton, a veterinary Surgeon residing at Gloucester. The next account was published in February, 1799, by Dr. John Simons, who corroborated Clayton. Within a year another excellent description was given by Lawrence, who went fully into the disease, and concluded by expressing a hope that the profession would turn their attention to the prevention of the original malady in the animals themselves. Clayton and Lawrence were nearly a century before their time. Cow-pox was not brought forward as a preventible malady until 1887-8, when after visiting the Wiltshire farm he (the speaker) advocated its being brought under the Contagious Diseases (Animals) Act. That suggestion, he was glad to say, had been acted upon. It was interesting to go back and find that two members of their profession advocated precisely the same thing a hundred years ago. Professor Crookshank then dealt with the character of disease in the cow, and referred to Seeley's statement that many farmers in his time believed the disease arose from equine grease. In December 1838, Seeley established that the disease could be propagated by the hand of the milker. He then went on to say that the profession had for the last fifty years been deceived over an unfortunate drawing of Seeley's. This was an ideal picture of cow-pox, and in it vesication was added, not, he was afraid, as Seeley saw it but as he wished to see it. He was afraid that in the light of their present knowledge it could only be looked upon as a pathological forgery. He believed it was greatly

owing to this plate that the belief had gradually grown, that ever since Jenner's time Cow-pox had been practically extinct. He was sure it was an erroneous doctrine. The medical text-books led them to believe that the cow's teats had vesicles as appeared on a child's arm. but the two were distinct. Professor Crookshank proceeded to give some of the recorded results of Jenner's early removes from the cow. He said they might imagine they were descriptions that had not been verified in recent times, but if they followed the history of outbreaks of Cow-pox they would find that the same thing had repeated itself over and over again. In 1836 there was an outbreak which created much interest in France. M. Barcay (?) tells of a black cow that had the Cow-pox six weeks after calving. On examining the teats he found a thick reddish-brown crust. A milkwoman contracted the disease, and on opening one of the vesicles it discharged like an abscess. From 1841 there were no recorded cases of Cow-pox for nearly fifty years. The disease undoubtedly was overlooked precisely for this reason that those who investigated it were unable to recognise the vesicles in the hand of milkers which all the others had described. In Wiltshire the disease manifested itself, and the symptoms were the same as those already described, the vesicles rapidly ran on to ulceration. Time would not permit him to trouble them with the particulars of those cases. But it was not only in the first inoculation from the cow to the hand of the milker that they met with these symptoms. Take some of Jenner's cases—Jane Phipps contracted the disease and in seven days had ulcers about the size of a pea, thus showing that even in this early vaccination there was a disposition to run on to ulcers. In a mild outbreak of Cow-pox the lymph raised was followed by corresponding mild effects. Taking the lymph from a healthy person this disease could be kept up until it exhibited these ordinary mild symptoms, but under certain condition if the lymph be taken too late there would be a tendency to revert to, full intensity of the natural virus. He had endeavoured to describe to them the characteristics of the natural disease of the cow. They must banish from their mind the idea that they could find in natural Cow-pox those characteristics which had been obtained by artificial cultivation. The ordinary result of vaccination could no more be taken as a description of the disease than they could take the ordinary vesicle on the arm as representing small-pox. Yet in their text-books they would find the description given of a disease in the cow, not the description he had brought before them, because the eyes of the profession had been blinded for fifty years to the character of the natural disease. They had been biasaed by Seeley's drawing. The doctrine that the two were the same could not stand for a moment at the present day. Cow-pox did exist at the present day. but the imaginary disease pictured by Seeley had not had, and never would have existence. (Applause.)

Professor Axe said he came there full of regret that he had not had an opportunity of reading the excellent paper which had been read to them that day. If he had done so he would have been in a position to have spoken with that force necessary on an occasion of this kind. Unfortunately Dr. Crookshank had not had time at his disposal for the purpose of placing it in their hands, and they would not therefore expect him to make a serious criticism on the paper. It must be gratifying to this Society to hear that amount of credit accorded to their profession which had fallen from the lips of Dr. Crookshank. There was no doubt that the veterinary profession had taken a very important part in the question of cow-pox from the earliest days, and he would add to those instances introduced by Dr. Crookshank the part played by Tanner the veterinary student who in the days of Jenner lived at Gloucester he believed. Tanner, he thought, was Jenner's right hand. Then Woodville was an important instrument in the matter. He furnished lymph not only to Jenner himself but also to the small-pox hospitals in London. Coming down to Seeley's time, there was Lepper of Aylesbury, who with other of his profession made it his study, and not least among the present workers was their very able *confrère* Dr. Fleming. (Hear.) So far he thought the veterinary profession had ranked in the forefront of the scientific aspect of the subject. Dr. Crookshank had given them a most interesting representation of the history of cow-pox. Like himself (Dr. Crookshank) no one could look at the illustrations which had been given by Seeley without having a considerable amount of doubt as to their accuracy, but there was just one point to which he would like to refer before impugning the accuracy of Seeley's plates. Had they at the present time had opportunities of investigating the subject of cow-pox, of giving that amount of time to it, and with such an amount of critical detail as Seeley devoted to it to enable them to say that the illustration given by Seeley was not strictly accurate? Dr. Crookshank had compared them with the plates of Herring, and he thought he remarked that the latter were illustrative of the natural cow-pox. Well, he thought that Seeley's plates illustrated cow-pox vaccinat. Cow-pox communicated cow-pox, therefore they would rather expect that the characteristic of the local eruption in the case of the natural cow-pox would not exactly be represented in the case of the inoculated cow-pox, and it might be perhaps that the plates of the inoculated cow-pox which Seeley had given them had been drawn from examples from a perfectly clean surface and perhaps from the skins of animals of a certain character capable of developing cow-pox in its most perfect and typical form which they perhaps had not the opportunity of doing. There was another point that he should like to be sure upon, and that was as to whether the cases of eruption of cows' teats which had been referred to had been actually demonstrated to be cow-pox. Had the disease been transmitted to the human subject and had characteristic vaccine symptoms been produced upon the human arm? Dr. Crookshank had pointed out that there was a great probability that cow-pox was as prevalent in the present day as it was perhaps in the time of Seeley, and he agreed with him. When

Jenner touched the question examples were abundantly produced. Until the time of Seeley the subject was allowed to sleep. The moment Seeley touched the question examples came to him in large numbers. It would seem that since the days of Seeley very little attention had been devoted to it, but now when the question came to the front again there was evidence that cow-pox was as prevalent now as in the days of the two distinguished observers Jenner and Seeley. He had been interested indeed in the consideration of the question but he hoped that at some future time Dr. Crookshank would draw their attention to horse-pox. He did not know that there were any other points which he could take up. He regretted that he had not had an opportunity of reading Dr. Crookshank's paper as he might then have dealt with the matter more forcibly, but he hoped they would give him credit for having introduced it in at any rate as forcible a manner as the circumstances allowed. (Applause.)

Dr. FLEMING said the scope of subject was so large and the question altogether was of such a very wide extent that he feared the few minutes allowed him would not permit him to do much justice to it. The remarks which Dr. Crookshank had made as to the results which had attended the study of the subject were perfectly justified. The earlier students were most correct in their diagnosis of the nature of the malady. Subsequent observers blundered by studying humanised cow-pox and not natural cow-pox. The notion was long ago started by Seeley or Dr. Badcock or Sachell, he did not know which, that the vacc. disease was only human; that was a most unfortunate mistake—it precluded a further investigation into the nature of small-pox. He knew of a case in India where a medical man in charge of a large district ran short of vaccine, and understanding the two maladies were the same, inoculated a cow with the small-pox matter, and the spurious vesicle formed yielded matter with which he inoculated a large number of children, thus producing a very wide-spread and serious outbreak of small-pox. Seeley imagined, it seemed, that he had produced cow-pox from the human small-pox. Badcock also reported that he had been succesful in a great number of cases but he thought there must have been some mistake in regard to the inoculation. Instead of using the small-pox virus he used vaccine virus to inoculate the cow. He thought a little reflection would convince them without reference to the experiment that the diseases were not identical; there was not a single case on record in which vaccine had become small-pox in the human being, and this was the most startling fact they could bring forward as to the non-identity of the two maladies. The importance of the subject was very great. Upon the introduction of vaccination had followed more beneficial results than had attended anything in medicine. Jenner had done more to benefit his species than anybody before or since his time. As to the relation of horse-pox to cow-pox it was of great importance whether, as some believed, one disease depended on the other. It was difficult to say, but he inclined to the opinion that the two were independent, and yet the analogy was of the very closest description. He remembered once seeing a farmer who had become inoculated from a horse's heel, and the physicians who saw him declared that if they had not known the circumstances they would have said it was cow-pox. Certainly sometimes it had the closest resemblance to cow-pox. He knew of a farmer who became inoculated in the hand and the doctors who saw him said the inoculation was exactly that of vaccine. There was no doubt about it that cow-pox was a beastly disease when it occurred amongst a herd of milch cows. The danger of it might be very great. They did not know what effects the virus might have when introduced into the mouth. and as a malady it was of such importance to cow-owners that he thought the Agricultural Department of the Privy Council had done well in including it in the Contagious Diseases (Animals) Act. The disease could be easily stamped out as it was produced only by inoculation and not by infection. To say the disease was rare was not strictly correct, he believed the malady was far from being rare—it had never been rare in this country, but he thought the profession had been misled by the description of the malady. Now that their attention had been drawn to it he did not think the profession would have any difficulty in finding a source of fresh supply of vaccine to replace the stock of vaccine lymph now in use. They owed a debt of gratitude to Dr. Crookshank for the able manner in which he had brought forward this important question. It was one that had a peculiar fascination for himself, and he was glad to think that Dr. Crookshank still insisted upon the non-identity of vaccine and small-pox, and that the natural malady in the cow differed essentially from the malady which had been described by previous observers. (Applause.)

Dr. CROOKSHANK, in reply to Professor Axe, said he referred to a particular drawing of Seeley's which purported to be a representation of inoculated cow-pox—other drawings were most faithfully and accurately done. The point that he found fault with was this—Seeley thought that vesicles would be seen as when cultivated in a child's arm, and so he added it to this drawing as representing the natural disease in the cow. Another important point was as to whether in the outbreaks he had referred to they had been verified as cow-pox—undoubtedly that was the case. Dr. Fleming had referred to the unfortunate doctrine as to cow-pox being modified small-pox. He was able to supply him with the origin of that remarkable theory. He came across it in looking up a work on the subject in the British Museum. It was commonly stated by the medical profession that Jenner believed that cow-pox arosé from the human small-pox through the hand of the milkers. That had actually been reproduced in some of their medical text books. It was a most seductive theory but absolutely erroneous, and not supported by a single shadow of fact. He recently challenged a statement in the *Lancet* but no such evidence was forthcoming. As a matter of fact the theory arose from Jenner giving the name of small-pox to cow-pox, but he did it for this

reason, not that he imagined that cow-pox was derived from human small-pox, but that he imagined both to be derived from grease, Shortly after Jenner, a writer named Fraser, who had no knowledge whatever of the disease in the cow, wrote a paper, in which he said his opinion was much better than Dr. Jenner's and remarked, "Whatever it may be I think it is small-pox of the cow." It was purely hypothetical. Dr. Crookshank quoted cases in support of his view and then went on to say with regard to the profession having been misled by not concentrating their attention on the disease in the cow that he would like to give a word of explanation. In the case of the outbreak at Wiltshire they had to investigate it without knowing what the disease was. He was informed by some member of their profession that the disease was common enough, but it was not described in the veterinary text books. The lamented Professor Robertson, when he had cows at Camden Town said, "We are familiar with this disease but it cannot be cow-pox, because it is not like Seeley's plates." This particular disease, which after all was cow-pox, was not described in the veterinary text books. The ideal cow-pox which had no existence, was of course described in the text books. He had been most anxious to bring this subject before them in the hope that they would turn their attention to it. There was another subject, "Horse-pox, and its relation to cow-pox," which he hoped to bring before them at some future time. In the meantime he would take the liberty to say that if they met generalised eruption in the horse he should be glad indeed if they would allow him to investigate them. Horse-pox was not recognized in this country and yet he was sure the disease existed. Sometimes when it occurred in the districts it was taken for glanders. In France the disease had been traced to the exportation of horses from this country. He thanked them for the attention with which they had listened to his paper.

The PRESIDENT said he had a pleasurable duty to perform in rising to propose a hearty vote of thanks to Dr. Crookshank for the very elaborate and interesting paper he had come that day to deliver. He was sorry he could not boast of any practical knowledge on the subject, but he had listened to the paper with a considerable amount of interest. He was sure that he was speaking the sentiments of every one in the room and that they would give him a hearty vote of thanks. (Cheers.)

Dr. FLEMING seconded the motion, and in doing so said that Dr. Crookshank was devoting time, means, and very brilliant talent to the investigation of diseases which were of the utmost importance to mankind. He hoped he would have health and strength to continue his researches for the benefit of his country. (Cheers.)

The proposition was heartily carried.

In responding, Dr. Crookshank spoke of the courtesy the veterinary profession always extended to him and the help they gave him in working out these subjects.

IN REPLY.

By A. E. MACGILLIVRAY, Banff. N.B.

Having unfortunately been absent from the recent meeting of the National Veterinary Association, you will perhaps kindly allow me the privilege of replying through your pages to the "discussion" which took place on the paper presented at that meeting from me. The chief deduction to be drawn from that discussion, in my opinion, is that I got most thoroughly "*sat upon!*"

The introducer of the discussion makes, according to your printed report, some most astounding statements, such as my calling a certain form of balanitis and vaginitis "the specific virus or to the spreading of impure vaginitis,"—what Mr. Olver means by this is more than I know! It seems to have no connection with the context. Again, Mr. Olver talks about leucorrhœa being "originally gonorrhœa," which is certainly a very funny statement of Mr. Olver's—not mine! Equally facetious is his statement that leucorrhæa pure and simple could not produce gonorrhæa—who ever said so? not I. Mr. Olver makes another extraordinary statement about some virus remaining "a considerable time in the smaller organs of the uterus," but what he means by this is I suspect what "no fellow can see through!" He then goes on to speak about the "male animal" becoming "infected with impure vaginitis or gonorrhæa!" Further on he informs us that all cases of leucorrhæa do not produce abortion; a fact which I specially drew attention to.

Professor Williams says "he could not believe for one single moment that they could have true gonorrhæa in the lower animals;" and then he waxes quite eloquent about his discovery of the connection of *tubercle* with the generative abnormalities under discussion. In answer to this I have merely to say that I never even mentioned gonorrhœa; but drew particular attention to the effects of the tubercular diathesis on the production of leucorrhœa and the subsequent abortions, and other abnormalities.

It is now seventeen years since I drew attention to the connection between tubercle and leucorrhœa (see the *Veterinarian* for November, 1872); but as a matter of course, as I cannot prefix *Professor* to my name like Nocard and Williams, my observations go for nothing. I should like to know if Nocard or Williams ever before made public the idea of tubercle or leucorrhœa having anything to do with the causation of either abortion or leucorrhœa or impure balanitis or vaginitis? In so far as I know they never did. Nocard's abortion "organism" has never been defined; and I opine the Highland Society's Committee of Investigation has done as much towards its elucidation as either Nocard or Williams. The tubercle "organism" is, as likely as not, the "mysterious cause" with which we have to fight in *abortion!*

Professor Williams' reference to the "limb of the ovary" is simply a vexatious riddle, which I am utterly unable to solve. Equally obnoxious to my limited understanding is the Professor's reference to the use of hydrochloric acid in cystic deposits—as I

never mentioned such a line of treatment. I find, however, by referring to Professor Williams' two well known works on *Surgery* (1872) and *Medicine* (1874) that he himself recommends hydrochloric acid in these *urinary deposit* cases; and doses of nitric acid three times a day in *gravelly* (or sand) deposits. No word of destruction of tissues, however;—that must be a "recent fear" of the worthy Professor's

According to Professor Edgar, my statements are to be received *cum grano salis!* The learned Professor would have liked to put "a few important questions" to me! Ah well, the Professor would most likely have got a few very unsatisfactory answers. It is, however, extremely satisfactory to find that Professor Edgar disagrees with the previous Professor as to the occurrence of cystitis. While I myself emphatically endorse Professor Edgar's remark that I left out "several important diseases." Might I ask if the Professor endeavoured to return the protruding bowels in that remarkable mare which "died in a few hours, ruptured by the penis of a horse!"

There is another remarkable mare which died in a "day or two" with an "accumulation of pus." Does Mr. Trigger mean to say that this accumulation of pus arose from injury received "a day or two" before!

The PRESIDENT was clearly of opinion that there was too much matter in my paper, and he did not well know what part to deal with; but, being an authority on intra-cystic complications, he evidently thought he would be safe to come down on me there; and he does so by charging me with saying that the discovery of cystic calculus was "rather a difficult matter," but that "he could find it easily;" and then he goes on to explain his *modus operandi*. Now, our worthy President is wrong in both his criticisms, for any one can see by referring to my paper that I don't make any reference to any difficulty in discovering cystic calculi, and that "I have always maintained the necessity and infallibility" of operating for their discovery *in exactly the same way* as that recommended by the President.

The President also quarrels with me for mentioning the extraction of a "seven ounce" calculus from a mare, and says he could easily withdraw one of "ten ounces!" Very likely he could, but it strikes me that this sort of criticism is remarkable only for its childishness, and is quite unworthy of the authority of a President. Of a like self-laudatory description is the President's reference to his discovering a cystic calculus "as big as a pullet's egg" in some cob-horse which he was examining. In such a case *any one*, seeing an abnormal discharge of urine, would at once have looked after the cause thereof *before certifying soundness*.

Messrs. McGavin and Trigger refer to cases of rupture of the vagina and uterus having occurred in mares during service. Now, although very unlikely, these untoward events might and no doubt do occur; but what are we to think when we observe that these gentlemen assert that the ruptures occurred after, and were caused by, erratic copulation or service *per rectum!* In such peculiar cases one might expect and look for rupture of the rectum; but where, in the name of wonder, is the connection between the introduction of the penis into the rectum *and rupture of the uterus?*

Our worthy observers and sagacious critics must really deign to give some sort of explanation of their most unlikely, if not entirely impossible, relations.

Professor Edgar and Mr. Walker — J. P. S. Walker?—both quarrel with the *quality* of my paper; they are certainly very polite, more so when I specially craved their kind indulgence for any drawback in my material or style; but I think I may, in conclusion, safely assert that the quality of my paper is quite equal, if not superior, to that of the literary material composing the discussion.

MIDLAND COUNTIES' VETERINARY MEDICAL ASSOCIATION.

The next meeting of the above Association will be held at 2.30 p.m., on Tuesday, the 20th inst., at the George Hotel, Rugby.

BUSINESS:

To read and adopt the minutes of last meeting.

To elect new members.

To appoint a Committee to examine the horses operated upon for Roaring, by Professor Axe.

To revise the rules of the Association.

Mr. T. H. Merrick will read a paper on "A recent outbreak of Anthrax."

It is the wish of the President that members will bring any pathological or other specimens likely to interest the meeting.

Dinner 5.30 prompt. JOHN MALCOLM, *Hon. Sec.*

YORKSHIRE VETERINARY MEDICAL SOCIETY.

The summer quarterly meeting of this Society was held on July 19th, at the Queen's Hotel, Leeds, the President, Mr. W. Lodge (Dewsbury) in the chair, and there were present Messrs. Jos. Carter (Bradford), G. Carter (Keighley), A. W. Briggs (Halifax), A. W. Mason, G. Bowman, and W. F. Greenhalgh, Hon. Sec. (Leeds), Mr. J. Scriven, Hon. Treasurer (Tadcaster), H. Snarry, and G. T. Pickering (York), G. Clarkson (Aberford), S. Chambers (Kirkheaton), members of the Society, and Dr. Watts (Medical Officer of Health, Dewsbury), Mr. T. Exley, M.R.C.V S., Mr. E. Anderton, and Mr. P. F. Falshaw, visitors.

Letters of apology for non-attendance were read from Professor Axe, Messrs. Bale (Otley), Axe (Doncaster), Longhurst (Hull), Kidd (Hungerford), Deighton (Riccal), Danby (Bainton), Hardy (York), Greaves, and Faulkner (Manchester), Scott (Harrogate), Freer (Uppingham), and A. Leather (Liverpool).

The minutes of the last meeting were confirmed.

Mr. G. Carter proposed Mr. Longhurst (Hull) as

a member of the Society, seconded by Mr. Mason and carried.

Mr. Scriven proposed Mr. Gavin Scott (Scarbro') as a member, seconded by Mr. Mason, and carried.

Mr. Greenhalgh nominated Mr. T. Exley (Leeds) as a member of the Society.

Empirics as Meat Inspectors.

At the last meeting of the Society a Committee was appointed to consider the question of the appointment of empirics as meat inspectors, &c., and the recommendation of the Committee was submitted in the following form, for adoption.

"At a meeting of the Yorkshire Veterinary Medical Association held in Leeds on July 18th the question of official meat inspection and of the oversight of cowsheds and dairies was introduced and discussed. It was decided then to point out to the various local sanitary authorities throughout Yorkshire the importance of these matters, and the necessity for substituting duly qualified veterinary surgeons for policemen and empirics generally as meat inspectors, and at the same time to recommend to the various sanitary authorities the advantages which must accrue from such a reform of the existing arrangements. The reasons set forth were that an efficient inspector of meat must, *prima facie*, be a good comparative pathologist. That the superficial knowledge of meat inspection displayed by policemen and empirics is an item of serious danger to the public health, and not unfrequently, is attended with unfairness to the butcher. That it is essential for the proper inspection of butchers' meat that an extensive and definite knowledge of anatomy —such only as a complete course of veterinary studies can guarantee—should be exercised. That only those who have thoroughly studied the structure, composition and general features of animals in health and in disease by the aid of chemistry, the microscope and other scientific methods and accessories of investigation, such as modern science has placed in the hands of the veterinarian, are competent to pronounce upon the soundness or unsoundness of the flesh of animals for human consumption."

Mr. J. Carter expressed the opinion that the recommendation of the Committee was a step in the right direction, but he was afraid more pressure would have to be put on the local authorities before they adopt it.

Mr. G. Carter remarked that the subject had been well considered by the Committee, and they came to the conclusion that the recommendation as drawn out by Mr. Briggs was such as the Society intended should be placed before them. There had also been an expression of opinion that if the various hon. secretaries of the different veterinary medical societies throughout the country would bring the matter forward for discussion at their meetings, and pass a similar resolution to that which had now been submitted, it would be productive of very great benefit to the profession. (Hear, hear). He proposed that the resolution of the Committee be adopted and acted upon.

This was seconded by Mr. Mason, who thought the secretaries of the various veterinary societies might inform them as to any action those societies might take. The resolution was carried unanimously.

Notice to Members.

The President stated that there was a rule in the Society to the effect that members not attending and not sending apologies, should be fined, and he thought it desirable that in future the rule should be put into effect. (Hear, hear).

A Specimen.

Mr. Briggs exhibited bones showing a fracture of the atlas and dentator.

Tuberculosis.

The President then read the following paper:—

Gentlemen,—In introducing the subject of "Tuberculosis" for your consideration, I must confess to some amount of hesitation and doubt, for it is a matter of the deepest importance and ought to be dealt with most painstakingly by myself and also by you, my brethren of the profession. I hope, however, you will excuse any short-comings in this address, and I trust it may be the means of inducing the veterinary profession in Yorkshire to declare what are their views respecting a disease so prevalent as this is among horned cattle, and especially among milk cows. Let me say I am convinced it is time the veterinary profession should see that some steps are taken to eradicate entirely out of the country this most baneful disease. You ought also I think to come to some definite understanding as to who are most competant to give authentic and therefore reliable opinions as to this disease when its existence is suspected or alleged and scientific investigations are required. It is a baneful malady peculiar to cattle, and is it not discreditable in the eyes of the public that when called upon to give evidence before the magistrates, veterinary surgeons are often found giving conflicting evidence upon a state of facts which are admitted by both sides to be accurate. Can we depend upon having the confidence and respect of our clients so long as such is the case? It is in order, if possible, to avoid such a contrariety of opinion, especially in the presence of judicial tribunals, that I invite you to assist me in a thorough and enlightened deliberation as to what Tuberculosis really is, what it leads to, and what is the prerogative of the veterinary surgeon when cases of this kind arise. Not only do I hope there will be an animated and exhaustive discussion to-day, but that even after this meeting is over should any fresh experience arise or additional knowledge be obtained, those of us who are in possession of it will take care that it is recorded as early as possible in the recognised public journals devoted to the profession.

In reading over the evidence in the recent diseased meat cases at Glasgow, I was very much surprised to find that nearly all the inspectors of meat whose evidence was taken were medical gentlemen. Now, with all respect to them, I am compelled to say that I cannot for the life of me understand why they allow themselves to be placed in a position which even from the point of professional etiquette they

ought to shun. If their candour were appealed to they would, I doubt not, admit that we have a domain of our own, and rights and privileges exclusively ours, and why they should intrude upon them entirely passes my understanding. Men, like ourselves, gentlemen, who are trained and skilled as to soundness of animal flesh cannot but be more competent to give evidence in cases like that I have referred to than the family surgeon who is only asked to interfere in such matters occasionally, and in order to bolster up a doubtful case. There are, I contend, abundant reasons why veterinary surgeons should exclnsively be admitted as professional witnesses in such cases, and more particularly why they alone should be called to the office of meat inspector. (Applause.)

Let me ask you now, gentlemen, to consider with me what "Tuberculosis is," and I would propound to you the following questions :—(1st) What is Tuberculosis and how does it affect cattle ? (2nd) Is it infectious? (3rd) Is it possible to be taken into the system by ingestion ? (4th) Is it hereditary? (5th) Would you consider the milk fit for human consumption if taken from a cow affected with tuberculosis whether the udder is affected or not ? (6th) Would you consider the flesh of an animal affected with Tuberculosis either in its first or the advanced stages fit for human food ? (7th) Is it essential that Tuberculosis should be brought within the operation and provisions of the Contagious Diseases (Animals) Act with a view specially to compensation being paid to the owners of animals which have to be compulsorily slaughtered ?

As to the first point, my definition of Tuberculosis is that it is a febrile disease attended with greater or less diffusion of granular deposits which give rise to a slow local inflammation by the irritation which they excite. You will often find narrow-chested animals with long legs those in which the disease is most apparent. You will notice that they hang down their heads and have a weak, hoarse cough, which is repeated if they are driven about quickly; the eyes often are bright and staring; the skin dry and harsh : and if the animal be a white one the skin it will frequently be found is of a yellow colour. They are, as a rule, capricious feeders, the bowels respond too easily to the action of laxatives, and the milk, besides being thin and blueish, is sometimes sour, while in pregnant animals abortion ensues, and in other cases irregular œstrum occurs.

Second.—It is infectious ? In my opinion there can be no doubt that it is very infectious. I have seen several case on one farm. The farmer has kept a cow suffering from Tuberculosis for some time and gradually the disease has extended to the others.

As to the third proposition—Is it possible this disease can be taken into the system by ingestion ? I must admit that upon this point I am not prepared to give a definite answer. I must declare it to be my opinion, however, that the disease can be taken into the system by ingestion.

Now my fourth point is—Is it hereditary ? My opinion is in the affirmative, but at the same time I have no proof to adduce further than in particular breeds, short-horns for instance, it appears to be most prevalent.

Fifthly.—Would you consider the milk fit for human consumption if taken from a cow suffering from Tuberculosis, whether the udder is affected or not. Now, I certainly think that the milk taken from a cow affected with Tuberculosis should not be used for family purposes. In several cases I have ordered animals to be destroyed which had become wasted and very thin although they were giving milk rather freely. If we reflect for a moment how much the juvenile population are nurtured upon milk we shall feel in honour bound to protect them as respecting the wholesomeness of the food administered to them. I would not for a moment declare that Tuberculous matter would produce Phthysis, but I am perfectly sure that it is very likely to bring on Diarrhœa, and sickness. In the cases of children fed from a bottle is it not frequently the case that they look pallid and emaciated, and may not this be the result of the liquid they are imbibing being either diseased or too much diluted.

Now coming to the sixth suggestion I threw out, I must avow I do not consider animal flesh fit for human food if impregnated with Tuberculosis to any extent. Mind you, I use the proviso "to any extent," by which I intend to convey that when an animal has become wasted and nearly all the organs of the body are more or less diseased, then the meat should not be allowed to come into the market, but I do think that when an animal is fat and in good condition, and when the lungs are the only parts affected, the carcase might be used for human food. In such circumstances we often find the tubercle encysted, or that it has become of a cheesy nature, in which case I consider no harm could be done. On the other hand, however, so soon as the glands indicate the presence of the disease I believe that the virus is on the march, and will soon do its pernicious work.

As to the seventh point which I have offered for your consideration I must say that I consider it very essential for the welfare of the country at large that Tuberculosis should be comprehended within the Contagious Diseases (Animals) Act, whereby I think the most effectual means would be provided for stamping the disease out. It is my belief that an aged cow affected with Tuberculosis kept upon a place for any length of time is likely to spread contagion in the neighbourhood. If there were legal powers to prevent such an occurrence as this, the milk consumers would most likely have the advantage to a greater extent than at present, of being supplied with good pure milk, and they might possibly also have the satisfaction of recognising a surface of cream such as rarely comes within their culinary experience now. (Applause.) Thanking you, gentlemen, for your kind attention to these remarks and sincerely hoping that good results may ensue, both to our own profession and to the public at large, I have now to invite discussion on this subject which all must admit is of national and paramount importance. (Loud applause.)

Mr. J. Carter thought the subject of Tubercu-

losis required a great deal of investigation. It was quite time something should be done in the matter. Very few members of the profession had perhaps seen so many cases of Tuberculosis as he had, and there was no doubt that where the disease existed in an advanced stage the meat should not be used for human food. He had seen two case recently at York. The animals had only been purchased three weeks, but the lungs of one of them bore abscesses the size of his hand. The animal was nearly a skeleton. The other was nearly as bad, and the milk from, or flesh of such animals was unfit for food.

Mr. Mason remarked that he was connected with the celebrated Glasgow case. He believed the great question they had to consider was at what stage of the disease they should condemn, and at which pass? The lungs of one of the animals were affected, but they were firm and the disease was in the encysted stage. The carcase of such a beast he should have felt justified in certifying as fit for food. With regard to the other he could find out nothing about it, there was no disease about it whatever. There was a rosy hue on the left costal membrane, but they often found that in case of animals that had been overdriven, and there was no organic disease whatever about the carcase, in fact it was one of the grandest carcases he had ever seen. He believed that they, as veterinary surgeons, had always passed carcases as fit for food when the animal was suffering from Tuberculosis in the early stage, but the scientific gentleman who gave evidence at Glasgow, stated that it did not matter in what stage—an animal suffering from Tuberculosis must be condemned and destroyed—it was not fit for human food. It was clear that even amongst themselves, as veterinary surgeons, there was great difference of opinion at present as to at what stages an animal suffering from tuberculosis should be condemned as unfit for food. In his opinion they had a good deal yet to learn as to this disease, and no satisfactory conclusion could be arrived at until there had been much more scientific research and that subject had been thoroughly thrashed out. He thought great credit was due to their President for having brought the subject before them for discussion.

Mr. Scriven expressed the opinion that domestication under certain conditions conduced to the disease.

Mr. Mason asked if any of those present agreed with him that the disease was more prevalent now than it used to be. He would like to know whether they thought the present mode of feeding and housing had anything to do with the disease.

Mr. J. Carter said he found the disease more prevalent among the thorough-bred short-horn breed.

Mr. Scriven was of opinion it was only found to exist in animals fed on brewers' grains, housed for extended periods, and milked to the last extremity.

Mr. Mason said he had asked about feeding because of the following comments appearing under the heading of "Agricultural notes" in the *Yorkshire Post* of that morning.

"Reference may be made to the director of one of the French laboratories, who stated his belief that cows fed upon grains become diseased in a short time, that although this food conduces to the supply of a larger quantity of milk, yet that milk is watery, by no means so nutritive, and probably productive of consumption in man, while it is certainly unwholesome. This statement seems to have excited alarm, and protests were made against it, but a well-know French investigator (Dr. Toussaint), who is quoted by the Agricultural Adviser to the Privy Council, made certain enquiries, the results of which he stated in print. One of his suggestions was that a cow which has furnished by a special course of feeding a quantity of milk in excess of what she would furnish naturally in the same length of time, produces a fluid with an abnormal secretion, and which persons of delicate stomachs cannot consume. Again, he says milk produced from cattle feeding upon grains is milk which results from an artificial kind of feeding. It is consequently artificial, and loses some of its most desirable qualities. Then he remarks that the milk of cows fed upon grains is of bad quality, and should be absolutely rejected as a food for infants of tender age, and yet brewers' grains are one of the most general of foods used by the producer of milk for town consumption, and for two reasons, first, because it produces quantity, which the dairyman desires to obtain without much regard to quality, and next the grains can be kept for a very considerable period, and are in very many instances purchased when they are cheap, and preserved in pits for use during the winter season. We have repeatedly seen grains taken from these pits for mixing with the food of the cattle, when they are not only extremely strong-smelling and as objectionable as any food can be, but abominably sour, and partially decomposed."

Mr. G. Bowman said he had no doubt the disease was infectious. It was taken into the system by ingestion. With regard to the milk, he thought it was injurious if the udder was affected in any way. It had been decided at Glasgow that no animal affected with tuberculosis was fit for human food, but in Leeds, if an animal had been affected with tuberculosis and the disease was localised and the lungs not in an encysted state, the carcase had been passed as fit for food. He mentioned a case in which a butcher that week had given £17 or £18 for an apparently healthy bullock, but on being killed it was found to be affected with tuberculosis, and the carcase was destroyed.

Mr. Carter.—Does he get any compensation?

Mr. Bowman.—Not a shilling. Continuing Mr. Bowman said, he believed the Leeds butchers had drawn out a petition to be presented to Parliament, requesting that the disease of tuberculosis should be ranked in the Contagious Diseases (Animals) Act, and pointing out that where beasts suffering from this disease were pronounced unfit for food, compensation should be paid the owners for the destruction of the carcase.

Mr. CLARKSON.—To what extent?

Mr. BOWMAN.—To the full extent.

Mr. CLARKSON.—Would it not be an inducement for butchers to purchase such animals?

Mr. BOWMAN.—Well, I really cannot say.

Mr. G. CARTER thought the subject so ably introduced by the President, was a very serious one, and one which he thought was deserving of their earnest attention. They would benefit to a great extent in their study of the disease by all the assistance they could obtain from the sister profession. There could be no doubt that tuberculosis was a specific disease and it was transmitted only by the admission of the spores into the system of the animal that took it. With regard to the system of feeding and housing, animals were affected with tuberculosis that had never been housed at all. He had found tuberculosis affecting the mesenteric glands when there had been diarrhœa, and he had found tubercular meningitis in young cattle. Those could not be taken to be produced by high feeding or milking. A medical Officer of Health had expressed the opinion to him that a great many children died every year from consuming milk from tubercular cows. He (Mr. Carter) asked if the officer knew of any children who had suffered from the consumption of such milk, and had recovered. The medical officer replied that he could point to two who were now fourteen or fifteen years old, and who had never shown any further symptom of the disease. He (Mr. Carter) asked if the medical officer considered the children had suffered from the effects of tuberculosis, did he not think they would in all probability have shown some further symptoms of the disease, and the medical officer replied that he thought they had not lived it down, but he could give no definite opinion. They were all agreed that tuberculosis was infectious, but from that fact he did not think they had a great spread of the disease. He thought it was mostly from the hereditary taint in animals—the consumption of milk from tubercular cows by calves. He did not think the infection was spread much by the air, although he had known cases in which it undoubtedly had been, but certainly it was possible to take it into the system by ingestion. In his opinion, if the udder was not affected, there was no danger in using the milk. If there were any tuberculosis in the mammary glands whatever he would condemn the animal, but if the animal was affected with tuberculosis locally, in the lungs and the pleural membrane, and he found no evidence of tubercular deposits in any other part of the body, and the animal was well nourished and the flesh firm, he would say it was fit for human food. If it was possible for phthysis to be produced in human beings by the consumption of animals affected with tuberculosis why did they not find more cases of it in the human subject? Was it not a fact that phthysis in the human species was decreasing. Seeing the large number of animals that were affected to a slight extent with tuberculosis and consumed for food, it looked very strange that there should not be more cases of phthysis if it could be produced by the consumption of tubercular flesh. If there were any tubercular deposits in any part of the flesh, or the animal was poor and weak, and the flesh did not set well he would condemn it; but if no suppurative changes had taken place he would pass it.

The PRESIDENT referred to the difficulty of diagnosing cases of tuberculosis, and to the danger of confounding the disease with pleuro-pneumonia. Time after time he had been confident he had a case of tuberculosis to deal with and it had ultimately turned out to be pleuro-pneumonia, and *vice versa*. He thought they would agree with him, that in many cases it was impossible to diagnose whether they had a case of pleuro-pneumonia to treat or tuberculosis. He did not think it was possible to differentiate with certainty.

Mr. BOWMAN described the case of an elderly man who was suffering from tuberculosis. He had several dogs and was in the habit of chewing meat and then giving it to his dogs to eat. The result was that the dogs showed every indication of suffering severely from the same disease.

Mr. MASON recollected a case in which a lady suffering acutely from consumption had occasion to use a spitoon frequently. Her dog was in the habit of licking the spitoon, and it ultimately died from tuberculosis.

Dr. WATTS (Medical Officer of Health for Dewsbury) said he accepted the invitation of their President to attend the meeting not to take part in the discussion but to obtain information on the important subject of tuberculosis. With regard to cases of phthysis, they found it in children not fed very much on milk, but in children belonging to the lower classes brought up anyhow. He did not say that impure milk from diseased animals would not produce it, but he thought they should not load the cow with too much blame. The question of dealing in the flesh of animals was an important one, and the subject was getting more important because such cases were continually cropping up and they should have some definite system to work on. When the tubercle was encysted he took it that the disease was in a dormant state, but the disease must still exist in the animal, and the question was whether the animal should be condemned at that time. Unfortunately perhaps as a medical officer of health he was in the particular position which they seemed to deprecate so much.

Mr. PICKERING thought with regard to the infectious nature of the disease, there must at first exist a susceptibility to the disease in the subject, and with regard to the hereditary taint, susceptibility must exist as well as defective sanitary arrangements if the disease progressed. With regard to the injurious effects of consuming the flesh or milk of animals suffering from tuberculosis, he thought it depended greatly upon the quantity of the milk or food taken, along with the affected meat or milk there were larger quantities of other food taken, and might it not be that the one counteracted the possible ill effects of the other. He might say that the conclusion arrived at by the York medical profession was that tuberculosis ought to be included in the Contagious Diseases (Animals) Act, and it was also decided that veterinary surgeons were the persons best qualified to inspect as to the sanitation,

etc., of cowsheds. He would like to ask the meeting whether they considered it was necessary that hereditary taint should exist in animals or human beings, as a condition of the subject becoming affected with tuberculosis.

Mr. Briggs thought it was clear the disease might arise independent of infection, and if that was so they would never stamp the disease out, if they included it under the Contagious Diseases (Animals) Act. They were perhaps apt to think that it was the animals affected with tuberculosis that went into the market, but he maintained that it was not so. It was hard lines no doubt for the butcher who gave £17, £18 or £20 for a beast, and who ultimately had it condemned on account of its suffering from tuberculosis, but he did not see how the difficulty was to be met by the Contagions Diseases (Animals) Act, until it was proved that it was due to contagion, and contagion only. He did not know what their opinion was, but he was under the impression that the disease would accrue from bad surroundings—bad ventilation in a mistal. It might be only hastening on a complaint latent in the system, but as to that they could not say. He agreed that it was difficult and almost impossible to diagnose some cases of tuberculosis and pleuro-pneumonia, though he never saw the temperature above 103 in cases of tuberculosis yet. With regard to the carcases of animals suffering from tuberculosis he would condemn all such animals however slightly they were affected with the disease. It did not follow that because a parasite settled on the lungs that the whole carcase was not affected, and all such carcases should be buried, being certainly unfit for food.

Mr. Greenhalgh pointed out that a large proportion of the animals slaughtered—at Leeds at anyrate—were affected with tuberculosis more or less, and if they condemned all of them it would be not only a very serious thing for the seller and buyer but also to the consumer.

On the motion of Mr. Briggs, seconded by Mr. Scriven, a hearty vote of thanks was accorded to the President, for the able manner in which he had brought the subject before the Association, and the proceedings terminated.

W. F. Greenhalgh, *Hon. Sec.*

GOVERNMENT VETY. DEPARTMENT.

CONTAGIOUS DISEASES IN ANIMALS.

Reported in Great Britain and Ireland during the week ended August 3rd, 1889.

Pleuro-pneumonia.—In Great Britain 12 fresh outbreaks of this disease were reported, 7 of them in England, in the counties of Essex, Kent, Lancaster, and Leicester. The 5 outbreaks in Scotland occurred in the counties of Edinburgh, Fife, and Perth. The total number of cattle attacked with pleuro-pneumonia during the week was 34, of which 18 were in England, and 16 in Scotland. The number of healthy cattle slaughtered on account of having been exposed to the risk of infection was 148, only 6 of which were in Scotland, the rest being in England. In Ireland 2 fresh outbreaks were reported in the North and South Dublin Unions, 2 cattle were attacked, and 8 healthy ones which had been in contact with diseased animals were slaughtered.

Anthrax.—There were 3 fresh outbreaks of this disease in Great Britain during the week, they occurred in the counties of Lincoln (Lindsey), Northampton, and Wigton. The number of animals attacked was 37, of which 33 were deer in Ickworth Park, near Bury St. Edmunds, Suffolk. In Ireland there was 1 outbreak of anthrax and 2 animals attacked, in the Lismore Union, County Waterford.

Swine-Fever.—In Great Britain 99 fresh outbreaks of this disease were reported, 97 in England, 1 in Wales, and 1 in Scotland; 573 pigs were attacked, 186 diseased swine were killed, 202 died, 41 recovered, and 556 remained alive at the end of the week. In Ireland 7 fresh outbreaks of swine-fever were reported, and 13 pigs were attacked.

Glanders and Farcy.—In England 14 fresh outbreaks of glanders were reported; 1 in Essex, 10 in London, 2 in Middlesex, and 1 in the Isle of Ely. The number of horses attacked in Great Britain was 21; 1 in Essex, 12 in London, 2 in Middlesex, 1 in the Isle of Ely, and 5 in Lanarkshire. Of farcy 9 fresh outbreaks occurred; 8 in London, in which 10 horses were affected, and 1 in Surrey in which only 1 horse was attacked. No case of either glanders or farcy occurred in Ireland during the week.

Rabies.—This disease is not only increasing in England, but the area over which it is distributed is extending. During the week ending August 3rd, it appears that 16 cases were reported, 15 of them in dogs and 1 in a pig. The counties in which these 15 cases in dogs occurred were:—Essex 1, Herts 1, Kent 2, Lancaster 1, London 3, Surrey 2, and York (W.R.) 5; the case in the pig was also in West Riding. In Ireland 7 cases of rabies were reported during the week, 5 in dogs, in Down, Tyrone, Kerry, Kildare, and West Meath, 1 head of cattle was attacked in Roscommon, and 1 donkey in Cork.

NOTES AND NEWS.

On "Expert Evidence."

A correspondent to *The British Medical Journal* writes:—

It is, indeed, difficult to see how an expert witness can help being, to a certain degree, an advocate of his opinions.

He is called to show that such and such things are the results of certain pre-existing circumstances.

He must have reasons for his belief; on his reasons he is examined and cross-examined, and he probably knows that there is an expert on the other side, who, in equal good faith, has come to a diametrically opposite conclusion.

The result is, that credit will be given to the witness who adduces the stronger arguments in favour of his views. And to adduce arguments clearly and tersely is nothing more nor less than advocacy. In other words, advocacy must form part of an expert's evidence.

But if our inquiry is pursued further we shall find that "advocacy" is by no means peculiar to experts. One has only to go into court when, for example, an action for libel or breach of promise is being heard, and to listen to the plaintiff or defendant giving evidence as to damages, and the hearer will have no doubt as to the real existence of "witness advocacy," to coin a phrase.

Yet we never hear that "the value of the evidence given is thereby much diminished, "while there generally is very good ground for casting imputations on the good faith of the witnesses. In referring to the medical evidence in the Maybrick trial his lordship expressly guards himself from making this imputation, and he would probably do the same in the case of all honourable expert witnesses.

The true conclusion would appear to be—"that the subtle partisanship existing in forensic medicine is, in reality, an attempt to give without bias, but cogently, the reasons on which certain opinions have been founded, and that it contrasts favourably with the undoubted bias and 'witness advocacy' of the ordinary common law litigant."

The Prevention of Tubercle.

The Streets Committee of the Darlington Corporation have resolved to recommend to the Council a periodical inspection of all dairymen's cows within their jurisdiction, with a view to prevent or minimise the spread of tubercular consumption by means of milk from animals suffering from tuberculosis. This decision must be regarded as the outcome of a recognition, which is daily on the increase, of the risk that attaches to the use of milk from cows suffering from tuberculosis, and of the fact that a very large number of cows are affected by this disease. As such we are glad to record the decision come to, for we cannot lay too much stress on the need which exists for maintaining all our food-supplies under an efficient and systematic supervision.—*Lancet.*

Cancer and Age in Animals.

An instructive monograph on tumours in the lower animals, by Dr. Plicque, appeared recently in the *Revue de Chirurgie.* Amongst the more interesting facts included in his paper is the relation of cancer to age. Animals protected by the resources of civilisation, so as to live to an old age rarely, if ever, met with in Nature, are especially subject to cancer. Indeed, Dr. Plicque finds distinct evidence that age is far more predisposing to cancer in beasts than in man. Bouley, a French veterinary authority of experience, believes, on the ground of long observation, that dogs are doomed to cancer if they live to old age and are not killed by some acute pulmonary or gastro-intestinal affection. The cat, often cherished and kept alive when old and miserable, is also very subject to cancer in age. Statistics show that cancer is far more frequent in the carnivora than in vegetable eaters. This statement, as Dr. Plicque is careful to explain, is liable to mislead the pathologist. Old cats and dogs, carnivorous animals, are kept alive through a somewhat misguided sentiment. But an old horse is seldom favoured in this doubtful way, and cattle are killed, or ought to be killed, when they are young and tender. The herbivora have little chance of living long enough to have cancer.

Hereditary Diseases in Man.

Professor A. Graham Bell calls attention to the enormous increase of deaf-mutes in the United States. In 1870 there were said to have been 10,000; ten years later, 34.000. A strong hereditary tendency to transmit defects of hearing from one generation to another undoubtedly exists. With deafness go other afflictions besides ignorance of speech. The ratio of the blind among deaf-mutes is fourteen and a half times as great as among the whole population; that of idiots is forty-three times as great. "Philantrophy in this country," says Professor Bell, "is doing everything possible to encourage marriage among deaf-mutes. We educate them together, teach them a language of their own —so that they know nothing of English. We send them out into the world, and they naturally prefer the company of each other. Unless this syatem of management is changed we shall, he says, certainly have a deaf variety of the human race."

Hereditary Influence of Maturity of Parents.

Dr. Andrew Combe, in his *Management of Infancy,* remarks as follows:—'*The period of life at which parents marry* exercises a great influence on the health and qualities of the offspring. If the parents have married at a very early age, and before the full development and maturity of their own organization, the children are generally more deficient in stamina than those born subsequently and under more favourable conditions. Elam, in a *Physican's Problems,* says:—'But we have said that transitory conditions are liable to transmission, and thus we observe youth, maturity, age. and precocity reproduced in the offspring. The young of animals not yet fully developed are small and stunted, incapable of perfection. It is observed in foals, lambs goats, calves, &c., of very young parents.'

But it is amongst greyhounds and race-horses that we see more clearly the advantages of breeding from fully matured parents. This no doubt arises from the fact that the 'staying' powers of these animals are subjected to a much more severe strain

than any other of our domestic animals, and consequently any defect of bodily organisation, whether congenital or acquired, becomes at once manifest. Blaine, in his *Encyclopædia of Rural Sports*, observes, in reference to the breeding of greyhounds: 'Some of our most successful breeders prefer to rear their dogs from fully matured parents. Among those we may particularly note Mr. Thacker, who has favoured the public with much illustrative matter on the subject. He informs us that he only knows of one instance of a first-rate greyhound being bred from a young dog and bitch, while, on the contrary, from parents on both sides eight, nine, and even ten years old, as the Stud Book annals testify, some of our most celebrated greyhounds have been bred. Burgundy, who started twenty-seven times, and won twenty-two out of the number, was bred from the get of Gasper when he was nine years old. Mr. Hassal's Claret, Bergami, and Vengeance were each of them bred from very old parents; and Mr. Thacker alludes to many other dogs and bitches of notoriety which were so bred.' As amongst greyhounds so amongst race-horses we find the produce of mature parents almost invariably the most successful.

Rice, in his *History of the British Turf*, makes the following remarks: 'The history of modern breeding has also gone far to prove the truth of the theory that a stallion cannot be too old, and that "stayers" cannot be bred from young sires, although "speedy" horses can. Stockwell was nine years old when he begat St. Albans, eleven years old when he begat Blair Athol, and twenty years old when he begat Doncaster and Gang Forward; while between these two last dates come Regalia, Lord Lyon, and Achievement. Blair Athol was put to the stud at the early age of four years, but with an abundant supply of good mares he begat his first St. Legér winner in Craig Millar when ten years old, and his first Derby winner in Silvio when twelve years old. The success of Beadsman, who was hardly employed at all as a sire until ten years old, has been already mentioned, and the cases of Parmesan and Adventurer may be added. These facts are entirely in accord with what reason would suggest, and they will probably be supplemented by abundant examples in the future.' Stonehenge observes that Middleton was the sire of Andover at eighteen, got Voltigeur at twenty-one, and Touchstone got Newminster at seventeen.

Beadsman, mentioned above, won the Derby and £80,000 in bets for Sir Joseph Hawley in 1858. He was the sire of Blue Gown that won the Derby in 1868, and of Green Sleeve, Rosicrucian, and Pero Gomez.

Stonehenge also makes the following remarks about a horse named Ougly Buck:—'The last mentioned horse was a remarkable instance of successful breeding from young parents. As in most cases of the kind, however, his early promises were not carried out, and he showed far better as a two-year-old and early in the following year than in his maturity. Such is often the case, and, I believe, is a very general rule in breeding all animals, whether horses, dogs, or cattle.'—*North British Agriculturist.*

CORRESPONDENCE.

Communications for the Editor to be addressed 20 Fulham Road, S.W.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

LAMBS REARED BY GOATS.

Sir,

Seeing the Correspondence in your Journal, *re* the above, I was induced to make enquiries of a man who owns twenty or thirty goats and who rears a couple of lambs by each goat every year. From the enquiries I have made I believe the lambs do not take on any of the habits of goats, but that their flesh is greatly improved, as also their fleeces, which command a higher price in the market than ordinary wool. The place they are reared is by the side of the mountain called "Cobler's Castle," in the Queen's County, and there is nothing in the nature of the ground to induce them to make jumps or take on kiddish propensities.

"Carlow."

TWO OMISSIONS.—A CORRECTION.

Sir,

In your report of the discussion upon Mr. Macgillivray's paper at the National Veterinary Association's Meeting two important omissions occur which make my criticism appear as absurd—

The first is in reference to *the time* in which Mr. Macgillivray stated a malignant growth occurred after normal removal—*a few hours*. The *time* was my point, not the fact of recurrence.

Sscondly, after the words "He had never seen a case of cancer that had been diagnosed" *in the cow* should be added.

I am, Sir, yours truly,

Wm. Alston Edgar.

CALF WITH EIGHT LEGS.

Sir,

If you think the following worthy of a short space in *The Record*, please let it appear there.

A cow, the property of T. C. Parry, Esq., Birley Court, near Leominster, not being able to calve, I was sent for, and after great difficulty the cow was delivered, the calf having two heads, one neck, four fore-legs, one body, four hind-legs and two tails. The cow is progressing favourably, I may say she is quite well, it occurring three weeks since. The calf was dead, but should think not more than a few days. Can any of your readers remember a similiar case.

Yours truly, J. R. Hill, M.R.C.V.S.

Hyde Ash, Leominster.

NATIONAL VETERINARY ASSOCIATION.

Sir,

As the proceedings of the N.V.A. are being published in your pages perhaps it will not be out of place to ask you to inform the members of the Association whether it is the usual custom for "official" Reporters to send their reports to periodicals *before* submitting them to those who engage them? At the same time we should be thankful if you would kindly inform the members of the N.V.A. that their Hon. Gen. Sec. was no party to this act, otherwise some evil-disposed person may credit him with another "abuse of the privileges" of his office.

Your Editorial "apology or explanation" seems to agree with us when we say that it would have been better, and certainly more in order, for the "official" report to have been forwarded to the "Publication Committee" of the N.V.A. *before being published*. However, Sir, there is probably no member of the Association who thinks this worthy of notice, especially as the Gen. Sec. has drawn attention to it, and no rule exists to prevent a recurrence of such publications. It might be considered offensive if we suggested that a Rule should be made to this effect; so perhaps, Mr. Editor you will kindly undertake the task, for no doubt, it would then be "carried" without any discussion.

Yours truly, Geo. A. Banham.